

ABSTRACT OF THE DISCLOSURE

5. The present invention is generally directed to  
the evolution of new metabolic pathways and the  
enhancement of bioprocessing through a process herein  
termed recursive sequence recombination. Recursive  
sequence recombination entails performing iterative  
cycles of recombination and screening or selection to  
10 "evolve" individual genes, whole plasmids or viruses,  
multigene clusters, or even whole genomes. Such  
techniques do not require the extensive analysis and  
computation required by conventional methods for  
metabolic engineering.